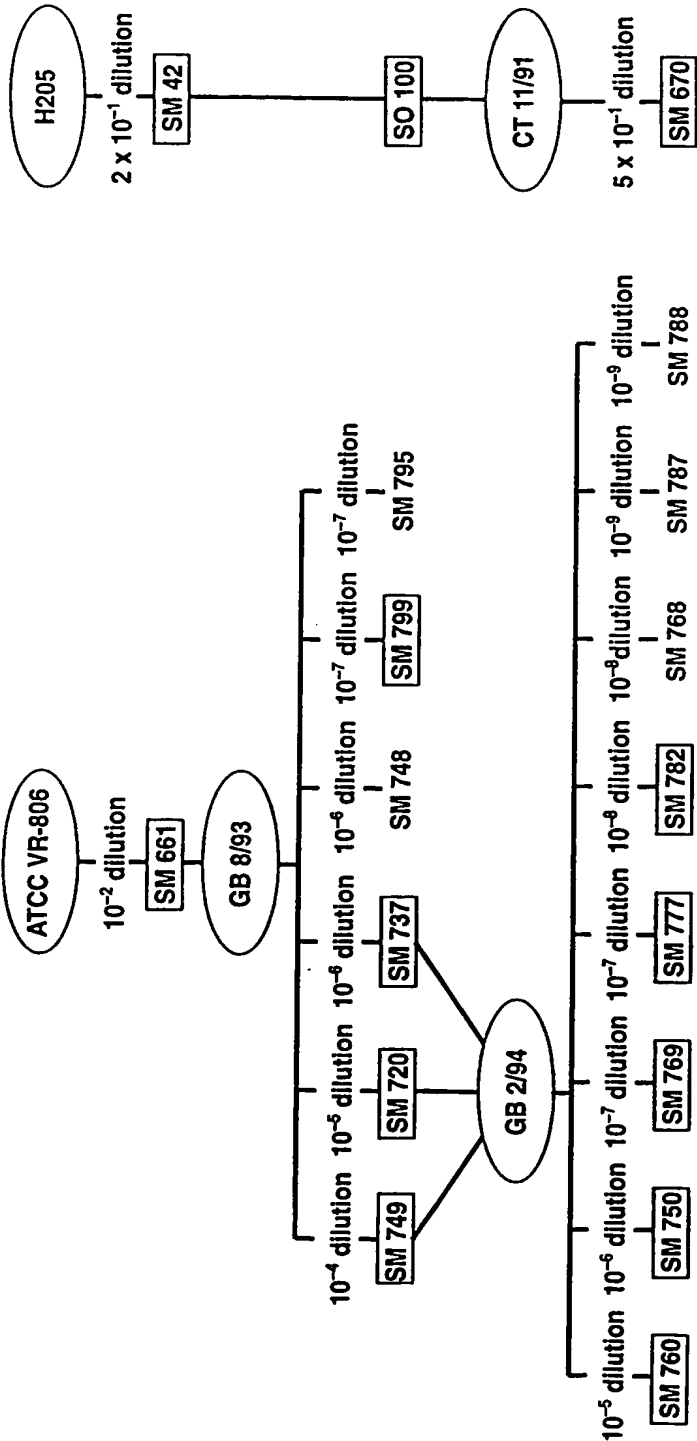
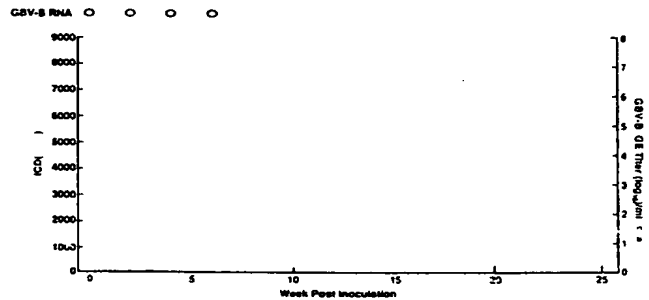
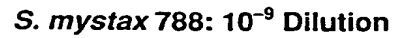
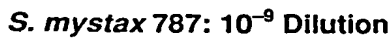
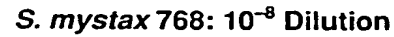
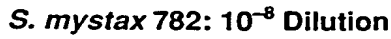
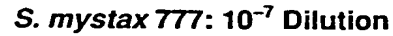
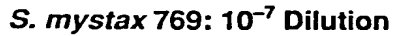
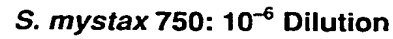


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FIG. 1



***S. mystax* 760: 10⁻⁵ Dilution**



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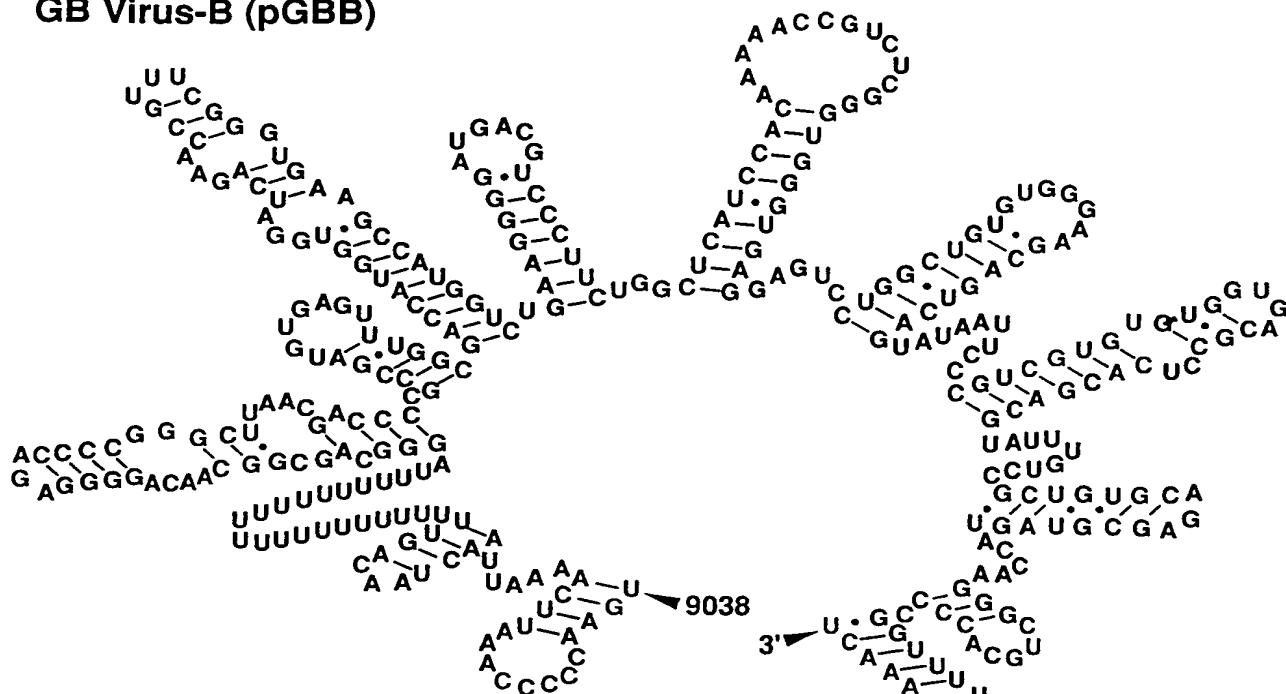
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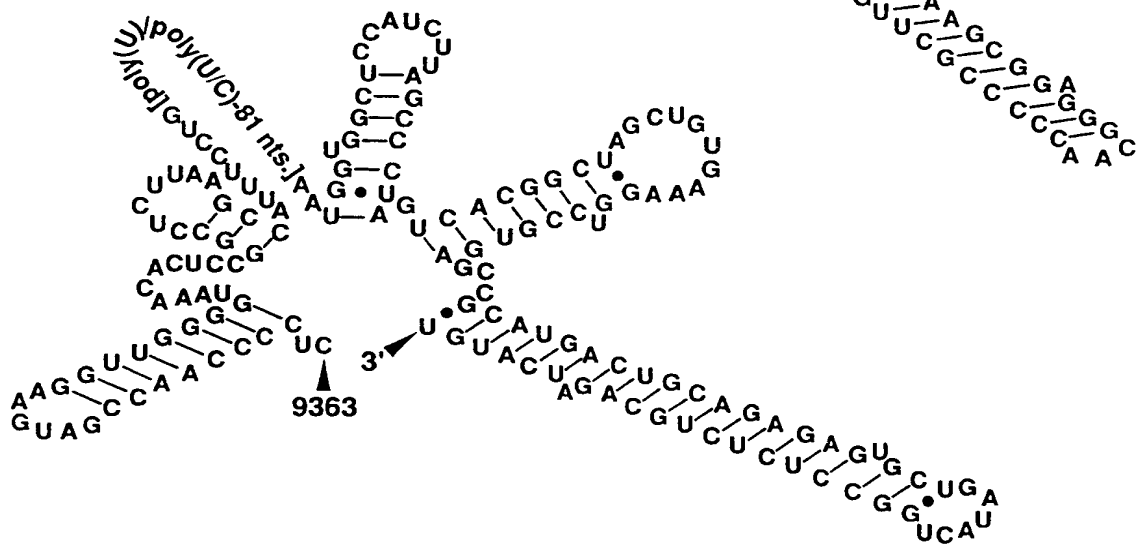
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FIG. 4

GB Virus-B (pGBB)

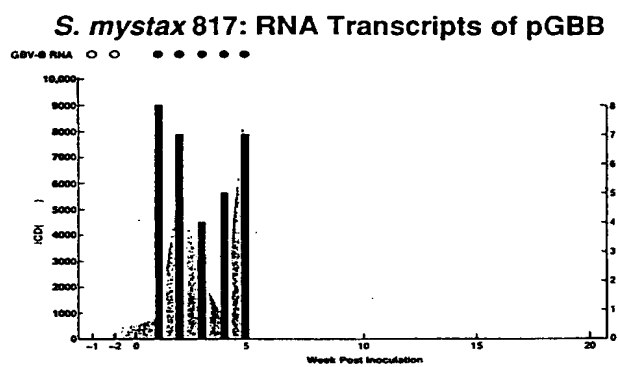
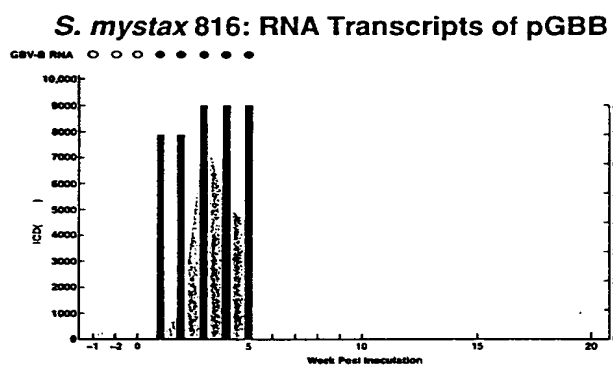


Hepatitis C Virus (pCV-H77C)



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FIG. 5



H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCTGTGA	50
GGAACCTACTG	TCTTCACGCA	GAAAGOGTCT	AGOCATGGCG	TTAGTATGAG	100
TGTCGTGCAG	CCTOCAGGAC	CCCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GACGACCGGG	TOCTTTCTTG	200
GATAAACCOC	CTCAATGCCT	GGAGATTITGG	GOGTGGCCCC	GCAAGACTGC	250
TAGCCGAGTA	GIGTITGGGTC	GCGAAAGGOC	TTGTGGTACT	GCTGTATAGG	300
GTCCTTGGCA	GTCGCCCCGG	AGGTCTCGTA	GACCGTGCAC	CATGAGCACG	350
AATCCTAAAC	CTCAAAGAAA	AACCAAACGT	AACACCAACC	GTCGCCACAA	400
GGACGTCAAG	TTCCCGGGTG	GCGGTACAGT	CGTITGGTGA	GTTTACTTGT	450
TGCGCGCGAG	GGGCCCTAGA	TTGGGTGTGC	GCGCGACGAG	GAAGACTTCC	500
GAGCGGTGCG	AACTTCGAGG	TAGAOGTCAG	CCTATCCCCA	AGGCAOGTCG	550
GCCCCAGGGC	AGGACCTGGG	CTCAGCCCCG	GTACCCCTTGG	CCCCCTCTATG	600
GCAATGAGGG	TTGCGGGTGG	GCGGGATGGC	TOCTGTCTCC	CCGTGGCTCT	650
CGCCCTAGCT	GGGGCCCCAC	AGACCCCCCG	CGTAGGTGCG	GCAATTITGGG	700
TAAGGTTCATC	GATACCTTTA	CGTGGGCTTT	CGCCGACCTC	ATGGGGTACA	750
TACCGCTCGT	CGGGCCCCCT	CTTGGAGGGG	CTGCCAGGGC	CCTGGCGCAT	800
GGCGTCCGGG	TTCTGGAAGA	CGCGTGAAC	TATGCAACAG	GGAACCTTCC	850
TGGTITGCTCT	TTCTCTATCT	TOCTTCTGGC	CCTGTCTCTCT	TGCCGTGACTG	900
TGCCCCGCTTC	AGCCTACCAA	GTGCGCAATT	CCTCGGGGCT	TTACCATGTC	950
ACCAATGATT	GCCCCAATCT	GAGTATTGTG	TACGAGGCGG	CCGATGCCAT	1000
CCTGCACACT	CCGGGGTGTG	TCCCTTGGGT	TGCGAGGGT	AACGCTCGA	1050
GGTGTITGGGT	GGCGGTGACC	CCCACGGTGG	CCACCAGGGA	CGGCAAACTC	1100
CCCACAACGC	AGCTTCGACG	TCATATOGAT	CTGCTTGTGG	GGAGCGCCAC	1150
CCTCTGCTCG	GCCCCCTACG	TGGGGGACCT	GTGCGGGTCT	GTCTTCTCTG	1200
TTGGTCAACT	GTTTACCTTC	TCTCCCAGGC	GCCACTGGAC	GACGCAAGAC	1250
TGCAATTGTT	CTATCTATCC	CGGCCATATA	ACGGGTTCATC	GCATGGCATG	1300
GGATATGATG	ATGAACCTGGT	CCCCTAAGGC	AGCGTITGGT	GTAGCTCAGC	1350
TGCTCCGGAT	CCCACAAGCC	ATCATGGACA	TGATGCTGGG	TGCTCACTGG	1400
GGAGTCCCTGG	CGGGCATAGC	GTATTCTCTCC	ATGGTGGGGA	ACTGGGCGAA	1450
GGTCCITGGTA	GTCCTGCTGC	TATTITGCGG	CGTGCAGCGG	GAAACCCACG	1500
TCACCGGGGG	AAATGCGCGC	CGCACCAAGG	CTGGGCTTGT	TGGTCTCCTT	1550
ACACCAGGCG	CCAAGCAGAA	CATCCAACCTG	ATCAACACCA	ACGGCAGTTG	1600
GCACATCAAT	AGCACGGCCT	TGAATTGCAA	TGAAAGCCTT	AACACCGGCT	1650
GGTTAGCAGG	GCTCTTCTAT	CAACACAAAT	TCAACTCTTC	AGGCTGTCTT	1700
GAGAGGTTGG	CCAGCTGCGG	ACGCCTTACC	GATTITGCCC	AGGGCTGGGG	1750
TOCTATCAGT	TATGCCAACG	GAAGGGGCTT	CGACGAACGC	COCTACTGCT	1800
GGCACTACCC	TCCAAGACCT	TGTGGCATTG	TGCCCCGAAA	GAGCGTGTGT	1850
GGCCCCGGTAT	ATTGCTTCAC	TCCCAGCCCC	GTGGTGGTGG	GAACGACCGA	1900

FIG. 6A

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CAGGTGCGGC	GCGCTACCT	ACAGCTGGGG	TGCAAATGAT	ACGGATGTCT	1950
TCGTCTTAA	CAACACCAGG	CCACCGCTGG	GCAATTGGTT	CGGTTGTACC	2000
TGGATGAACT	CAACTGGATT	CACCAAAGTG	TGCGGAGGCG	CCCTTGTGT	2050
CATCGGAGGG	GTGGGCAACA	ACACCTTGCT	CTGCCCCACT	GATTGCTTCC	2100
GCAAACATCC	GGAAGCCACA	TACTCTGGGT	GCGGCTCCGG	TCCCTGGATT	2150
ACACCCAGGT	GCATGGTCCA	CTACCGGTAT	AGGCTTTGGC	ACTATCCTTG	2200
TACCATCAAT	TACACCATAT	TCAAAGTCAG	GATGTAAGTG	GGAGGGGTGG	2250
AGCACAGGCT	GGAAGCGGCG	TGCAACTTGA	CGCGGGGCGA	ACGCTGTGAT	2300
CTGGAAGACA	GGGACAGGTC	CGAGCTCAGC	CCGTGTCTGC	TGTCCACCAC	2350
ACAGTGGCAG	GTCTTTCGT	GTCTTTTCAC	GACCTTGCCA	GCCTTGTCCA	2400
CCGGCTTCAT	CCACCTCCAC	CAGAACATTG	TGGACGTGCA	GTAATTGTAC	2450
GGGGTAGGGT	CAAGCATCGC	GTCTTGGGCC	ATTAAAGTGGG	AGTACGTGGT	2500
TCTCTGTTC	CTTCTGCTTG	CAGACGCGCG	CGTCTGCTCC	TGCTTGTGGA	2550
TGATGTTACT	CATATCCCAA	GCGGAGGCGG	CTTTGGAGAA	CCTCGTAATA	2600
CTCAATGCAG	CATCCCTGGC	CGGACGCAC	GGTCTGTGTG	CCTTCTCTGT	2650
GTCTTCTGC	TTTGCGTGGT	ATCTGAAGGG	TAGGTGGGTG	CCCGGAGCGG	2700
TCTACGCCCT	CTACGGGATG	TGCCCTCTCC	TCTGCTCCT	GCTGGCGTTG	2750
CCTCAGCGGG	CATACGCACT	GGACACGGAG	GTGGCCGCGT	CGTGTGGCGG	2800
CGTTGTTCCT	GTGGGGTTAA	TGGCGCTGAC	TCTGTGCGCA	TATTACAAGC	2850
GCTATATCAG	CTGGTGCATG	TGGTGGCTTC	AGTATTTTCT	GACCAGAGTA	2900
GAAGCGCAAC	TGCACGTGTG	GGTTCCCCCC	CTCAACGTCC	GGGGGGGGCG	2950
CGATGCCGTC	ATCTTACTCA	TGTGTGTAGT	ACACCCGACC	CTGGTATTTG	3000
ACATCACCAA	ACTACTCCTG	GCCATCTTCG	GACCCCTTTG	GATTCTTCAA	3050
GCCAGTTTGC	TTAAAGTCCC	CTACTTGGTG	CGGTTCAAG	GCCTTCTCCG	3100
GATCTGCCGG	CTAGCGCGGA	AGATAGCCGG	AGGTCAATTAC	GTGCAAAATGG	3150
CCATCATCAA	GTTAGGGGGG	CTTACTGGCA	CCTATGTGTA	TAAACATCTC	3200
ACCCCTCTTC	GAGACTGGGC	GCACAACGGC	CTGCGAGATC	TGGCCGTGGC	3250
TGTGGAACCA	GTCGTCTTCT	CCCGAATGGA	GACCAAGCTC	ATCAAGTGGG	3300
GGGCAGATAC	CGCCCGGTGC	GGTGACATCA	TCAACGGCTT	GCCCGTCTCT	3350
GCCCGTAGGG	GCCAGGAGAT	ACTGCTTGGG	CCAGCCGACG	GAATGGTCTC	3400
CAAGGGGTGG	AGGTGTCTGG	CGCCCATCAC	GGCGTACGCC	CAGCAGACGA	3450
GAGGCCTCCT	AGGGTGTATA	ATCACAGGCC	TGACTGGCCG	GGACAAAAC	3500
CAAGTGGAGG	GTGAGGTCCA	GATCGTGTCA	ACTGCTACCC	AAACCTTCTT	3550
GGCAACGTGC	ATCAATGGGG	TATGCTGGAC	TCTGTACAC	GGGGCCGGAA	3600
CGAGGACCAT	CGCATCACCC	AAGGGTCTTG	TCATCCAGAT	GTATACCAAT	3650
GTGGACCAAG	ACCTTGTGGG	CTGGCCCGCT	CCTCAAGGTT	CCCGCTCATT	3700
GACACCCGTG	ACCTGCGGCT	CCTCGGACCT	TTACCTGGTC	ACGAGGCACG	3750
CCGATGTICAT	TCCCGTGCGC	CGGCGAGGTG	ATAGCAGGGG	TAGCCTGCTT	3800

FIG. 6B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGCCCCCGGC	CCATTTCCTA	CTTGAAAGGC	TCCTCGGGGG	GTCCGCTGTT	3850
GTGCCCCGCG	GGACACGCGG	TGGGCTATT	CAGGGCGCGG	GTGTGCACCC	3900
GTGGAGTGGC	TAAAGCGGTG	GACTTTATCC	CTGTGGAGAA	CCTAGGGACA	3950
ACCATGAGAT	CCCGGTGTT	CACGGACAAC	TCCTCTCCAC	CAGCAGTGCC	4000
CCAGAGCTTC	CAGGTGGGCC	ACCTGCATGC	TCCCACCGGC	AGCGGTAAAG	4050
GCACCAAGGT	CCCGGCTGGG	TACGCAGGCC	AGGGCTACAA	GGTGTGGTG	4100
CTCAACCCCT	CTGTTCCTGC	AACGCTGGGC	TTTGGTGCTT	ACATGTCCAA	4150
GGCCCATGGG	GTGTATCCTA	ATATCAGGAC	CGGGGTGAGA	ACAATTACCA	4200
CTGGCAGCCC	CATCAGGTAC	TCAACCTACG	GCAAGTTCTT	TGCGCAGCGG	4250
GGGTGCTCAG	GAGGTGCTTA	TGACATAATA	ATTTGTGACG	AGTGCCACTC	4300
CACGGATGCC	ACATCCATCT	TGGGCATCGG	CACTGTCTTT	GACCAAGCAG	4350
AGACTGCGGG	GGCGAGACTG	GTGTGTCTCG	CCACTGCTAC	CCCTCCGGGC	4400
TCCGTCACTG	TGTCCCATCC	TAACATCGAG	GAGGTGTCTC	TGTCCACCAC	4450
CGGAGAGATC	CCCTTTTACG	GCAAGGCTAT	CCCCCTCGAG	GTGATCAAGG	4500
GGGGAAGACA	TCTCATCTTC	TGCCACTCAA	AGAAGAAGTG	CGACGAGCTC	4550
GCCGCGAAGC	TGGTCCGATT	GGGCATCAAT	GCCGTGGCCT	ACTACCGCGG	4600
TCTTGACGTG	TCTGTATCC	CGACCAGCGG	CGATGTGTGC	GTGTGTCTGA	4650
CCGATGCTCT	CATGACTGGC	TTTACCGGCG	ACTTCGACTC	TGTGATAGAC	4700
TGCAACACGT	GTGTCACTCA	GACAGTCGAT	TTCAGCCTTG	ACCTACCTTT	4750
TACCATTGAG	ACAACCACGC	TCCCCCAGGA	TGCTGTCTCC	AGGACTCAAC	4800
GCCGGGGCAG	GACTGGCAGG	GGGAAGCCAG	GCATCTATAG	ATTTGTGGCA	4850
CCGGGGGAGC	GCCCCCTCGG	CATGTTCGAC	TGTTCCGTCC	TCTGTGAGTG	4900
CTATGACCGG	GGCTGTGCTT	GGTATGAGCT	CACGCCCCGC	GAGACTACAG	4950
TTAGGCTACG	AGCGTACATG	AACACCCCGG	GGCTTCCCGT	GTGCCAGGAC	5000
CATCTTGAAT	TTTGGGAGGG	CGTCTTTACG	GGCTCACTC	ATATAGATGC	5050
CCACTTTTFA	TCCAGACAA	AGCAGAGTGG	GGAGAACTTT	OCTTACCTGG	5100
TAGCGTACCA	AGCCACCGTG	TGGGCTAGGG	CTCAAGCCCC	TCCCCCATCG	5150
TGGGACCAGA	TGTGGAAGTG	TTTGATCCGC	CTTAAACCCA	CCCTCCATGG	5200
GCCAACACCC	CTGCTATACA	GACTGGGCGC	TGTTTCAGAAT	GAAGTACCCC	5250
TGACGCACCC	AATCACCAAA	TACATCATGA	CATGCATGTC	GGCGACCTG	5300
GAGGTGCTCA	CGAGCACTG	GGTGCTCGTT	GGCGGCGTCC	TGGCTGCTCT	5350
GGCCGCGTAT	TGCCGTGTC	CAGGCTGCGT	GGTCATAGTG	GGCAGGATCG	5400
TCTTGTCCGG	GAAGCCGGCA	ATTATACCTG	ACAGGGAGGT	TCTCTACCCG	5450
GAGTTCGATG	AGATGGAAGA	GTGCTCTCAG	CACTTACCGT	ACATCGAGCA	5500
AGGGATGATG	CTCGCTGAGC	AGTTCAAGCA	CAAGGCCCCC	GGCTCCTGTC	5550
AGACCGCGTC	CCGCCATGCA	GAGGTATATCA	CCCCCTGCTGT	CCAGACCAAC	5600
TGGCAGAAAC	TCGAGGTCTT	TTGGGCGAAG	CACATGTGGA	ATTTATCAG	5650
TGGGATACAA	TACTTGGCGG	GCCTGTCAAC	GCTGCCTGGT	AACCCCGCCA	5700

FIG. 6C

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TTGCTTCATT	GATGGCTTTT	ACAGCTGCOG	TCACCAGCCC	ACTAACCCT	5750
GGCCAAACCC	TCCTCTTCAA	CATATTGGGG	GGGTGGGTGG	CTGCCCAGCT	5800
CGCCGCCCCC	GGTGGCGCTA	CTGCTTTTGT	GGGTGCTGGC	CTAGCTGGCG	5850
CCGCCATCGG	CAGCGTTGGA	CTGGGGAAGG	TCCTCGTGGG	CATTCTTGCA	5900
GGGTATGGCG	CGCGGTGGC	GGGAGCTCTT	GTAGCATTCG	AGATCATGAG	5950
CGGTGAGGTC	CCCTCCAAGG	AGGAOCTGGT	CAATCTGCTG	CCCGCCATCC	6000
TCTCGOCTGG	AGOOCTTGTA	GTCGGTGTGG	TCTGCGCAGC	AATACTGGCG	6050
CGGCACGTTG	GCCCGGGCGA	GGGGGCAGTG	CAATGGATGA	ACCGGCTAAT	6100
AGCCTTCGOC	TCCCGGGGGA	ACCATGTTTC	CCCCAGGCAC	TACGTGCCGG	6150
AGAGCGATGC	AGCCGCCCGC	GTCAGTGGCA	TACTCAGCAG	CCTCAGCTGA	6200
ACCCAGCTCC	TGAGGCGACT	GCATCAGTGG	ATAAGCTCGG	AGTGTACCAC	6250
TCCATGCTCC	GGTTCCTGGC	TAAGGGACAT	CTGGGACTGG	ATATGCGAGG	6300
TGCTGAGCGA	CTTTAAGACC	TGGCTGAAAG	CCAAGCTCAT	GCCACAACCTG	6350
CCTGGGATTTC	CCTTTGTGTG	CTGCCAGCGC	GGGTATAGGG	GGGTCTGGCG	6400
AGGAGACGGC	ATTATGCACA	CTCGCTGCCA	CTGTGGAGCT	GAGATCACTG	6900
GACATGTCAA	AAACGGGACG	ATGAGGATCG	TGGGTCTTAG	GACCTGCAGG	6950
AACATGTGGA	GTGGGACGTT	CCCCATTAAC	GCCTACACCA	CGGGCCCCCTG	6550
TACTCCCCCTT	CCTGCGCCGA	ACTATAAGTT	CGCGCTGTGG	AGGGTGTCTG	6600
CAGAGGAATA	CGTGGAGATA	AGGCGGGTGG	GGGACTTCCA	CTACGTATCG	6650
GGTATGACTA	CTGACAATCT	TAAATGCCCG	TGCCAGATCC	CATCGCCCCGA	6700
ATTTTTCACA	GAATTGGACG	GGGTGCGCCT	ACACAGGTTT	GCGCCCCCTT	6750
GCAAGCCCTT	GCTGCGGGAG	GAGGTATCAT	TCAGAGTAGG	ACTCCACGAG	6800
TACCCGGTGG	GGTCCGAATT	ACCTTGCGAG	CCCGAACCGG	ACGTAGCCGT	6850
GTGTACGTC	ATGCTCACTG	ATCCCTCCCA	TATAACAGCA	GAGGCGGCGG	6900
GGAGAAGGTT	GGCGAGAGGG	TCACCCCTT	CTATGGCCAG	CTCCTCGGCT	6950
AGCCAGCTGT	CCGCTCCATC	TCTCAAGGCA	ACTTGCACCG	CCAACCATGA	7000
CTCCCCCTGAC	GCCGAGCTCA	TAGAGGCTAA	CCTCCTGTGG	AGGCAGGAGA	7050
TGGGCGGCAA	CATCACCAGG	GTGTAGTTCAG	AGAACAAAGT	GGTGTCTCTG	7100
GACTCCTTCG	ATCCGCTTGT	GGCAGAGGAG	GATGAGCGGG	AGGTCTCCGT	7150
ACCTGCAGAA	ATTCTGCGGA	AGTCTCGGAG	ATTGCGCCCG	GCCCTGCCCG	7200
TCTGGGCGCG	GCCGACTTAC	AACCCCCCGC	TAGTACAGAC	GTGGAAAAAG	7250
CCTGACTACG	AACCACTGT	GGTCCATGGC	TGCCCCCTAC	CACCTCCACG	7300
GTCCCCCTCCT	GTGCCTCCGC	CTCGGAAAAA	GCGTACGGTG	GTCTTCACCG	7350
AATCAACCCCT	ATCTACTGCC	TTGGCCGAGC	TTGCCACCAA	AAGTTTGTGC	7400
AGCTCCTCAA	CTTCCGGCAT	TACGGGCGAC	AATACGACAA	CATCCTCTGA	7450
GCCCCGCCCT	TCTGGCTGCC	CCCCGACTC	CGAGTTGAG	TCTTATCTTT	7500
CCATGCCCCC	CCTGGAGGGG	GAGCCTGGGG	ATCCGGATCT	CAGCGACGGG	7550
TCATGGTCCA	CGGTACGTAG	TGGGGCCGAC	ACCGAAGATG	TGGTGTGCTG	7600

FIG. 6D

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CTCAATGTCT	TATTCCTGGA	CAGGCGCACT	CGTCACCCCG	TGCGCTGCGG	7650
AAGAACAAAA	ACTGCCCATC	AAOGCACCTGA	GCAACTCGTT	GCTAOGCCAT	7700
CACAATCTGG	TGTATTCCAC	CACTTCACGC	AGTGTCTGCC	AAAGGCAGAA	7750
GAAAGTCACA	TTTGACAGAC	TGCAAGTTCT	GGACAGCCAT	TACCAGGACG	7800
TGCTCAAGGA	GGTCAAAGCA	GCGGCGTCAA	AAGTGAAGGC	TAACCTTGCTA	7850
TCOGTAGAGG	AAGCTTGACG	CCTGACGCCC	CCACATTCAG	CCAAATCCAA	7900
GTITGGCTAT	GGGGCAAAG	ACGTCCGTTG	CCATCCCAGA	AAGGCCGTAG	7950
CCCACATCAA	CTCOGTGTGG	AAAGACCTTC	TGGAAGACAG	TGTAACACCA	8000
ATAGACACTA	CCATCATGGC	CAAGAACGAG	GTITTCCTGG	TTCAGCCTGA	8050
GAAGGGGGGT	CGTAAGCCAG	CTOGTCTCAT	CGTGTTCCCC	GACCTGGGCG	8100
TGCGCGTGTG	CGAGAAGATG	GCCCTGTACG	ACGTGGTTAG	CAAGCTCCCC	8150
CTGGCCGTGA	TGGGAAGCTC	CTACGGATTG	CAATACTCAC	CAGGACAGCG	8200
GGTTGAATTG	CTCGTGCAAG	CGTGGAAAGT	CAAGAAGACC	CCGATGGGGT	8250
TCTCGTATGA	TACCCGCTGT	TTTGACTCCA	CAGTCACTGA	GAGCGACATC	8300
CGTACGGAGG	AGGCAATTTA	CCAATGTTGT	GACCTGGACC	CCCAAGCCCC	8350
CGTGGCCATC	AAGTCCCTCA	CTGAGAGGCT	TTATGTTGGG	GGCCCTCTTA	8400
CCAATTCAAG	GGGGGAAAAC	TGCGGCTACC	GCAGGTGCCG	CGCGAGCCGC	8450
GTAATGACAA	CTAGCTGTGG	TAACACCCCT	ACTTGCTACA	TCAAGGCCCG	8500
GGCAGCCTGT	CGAGCCGCAG	GGCTCCAGGA	CTGCACCATG	CTCGTGTGTG	8550
GCGACGACTT	AGTCGTTATC	TGTGAAAGTG	CGGGGGTCCA	GGAGGACCGG	8600
GCGAGCCTGA	GAGCCTTCAC	GGAGGCTATG	ACCAGGTAAT	CCGCCCCCCC	8650
CGGGGACCCC	CCACAACCAG	AATACGACTT	GGAGCTTATA	ACATCATGCT	8700
CCTCCAACGT	GTCAGTCGCC	CACGACGGCG	CTGGAAAGAG	GGTCTACTAC	8750
CTTACCCGTG	ACCCTACAAC	CCCCCTCGCG	AGAGCCCGGT	GGGAGACAGC	8800
AAGACACACT	CCAGTCAATT	CCTGGCTAGG	CAACATAATC	ATGTTTGCCC	8850
CCACACTGTG	GGCGAGGATG	ATACTGATGA	CCCATTTCTT	TAGCGTCCCT	8900
ATAGCCAGGG	ATCAGCTTGA	ACAGGCTCTT	AACTGTGAGA	TCTAAGGAGC	8950
CTGCTACTCC	ATAGAACCAC	TGGATCTACC	TCCAATCATT	CAAAGACTCC	9000
ATGGCCTCAG	CGCATTTTCA	CTCCACAGTT	ACTCTCCAGG	TGAAATCAAT	9050
AGGGTGGCCG	CATGCCCTCAG	AAAACCTGGG	GTCCCGCCCT	TGCGAGCTTG	9100
GAGACACCGG	GCCCCGAGCG	TCCGCGCTAG	GCTTCTGTCC	AGAGGAGGCA	9150
GGGCTGCCAT	ATGTGGCAAG	TACCTCTTCA	ACTGGGCAGT	AAGAACAAAG	9200
CTCAAACCTA	CTCCAATAGC	GGCCGCTGGC	CGGCTGGACT	TGTCCGGTTG	9250
GTTCACGGCT	GGCTACAGCG	GGGGAGACAT	TTATCACAGC	GTGTCTCATG	9300
CCCGGCCCCG	CTGGTTCCTG	TTTTCGCTAC	TCTGTCTCGC	TGCAGGGGTA	9350
GGCATCTACC	TCCCTCCCCAA	CCGATGAAGG	TTGGGGTAAA	CACTCCGGCC	9400
TCTTAAGCCA	TTTCCGTGTT	TTTTTTTTTT	TTTTTTTTTT	TTTTTCTTTT	9450
TTTTTTTCTT	TCCTTTCCCT	CTTTTTTTCC	TTTCTTTTTC	CCTTCTTTAA	9500

FIG. 6E

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGGTGGCTCC	ATCTTAGCCC	TAGTCACGGC	TAGCTGTGAA	AGGTCOGTGA	9550
GGCGCATGAC	TGCAGAGAGT	GCTGATACTG	GCCTCTCTGC	AGATCATGT	9599

FIG. 6F

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQRK	TKRNINRRPQ	DVKFPGGQI	VGGVYLLPRR	GPRLGVRATR	50
KTSESRQPRG	RRQPIPKARR	PEGRIWAQPG	YFWPLYGNEG	CGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLG	KVIDTLTOGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLIVPAS	AYQVRNSSGL	200
YHVINDCPNS	STVYEAADAI	LHTPGCVPCV	REGNASRCWV	AVTPTIVATRD	250
GKLPITQLRR	HIDLLVGSAT	LCSALYVGD	CGSVFLVGQL	FTFSPRRHWT	300
TQDCNCSTYP	GHITGHRMAW	DMMNWSPTA	ALVVAQLLRI	PQATMDMIAG	350
AHWGVLGIA	YFSMVGWAK	VLVLLLLFAG	VDAETHVTGG	NAGRITTAGLV	400
GLLTPGAKQN	IQLININGSW	HINSTALNCN	ESLNTGWLAG	LFYQHKFNSS	450
GCPERLASCR	RLTDFAGWAG	PISYANGSGL	DERPYCWHYP	PRPGIIVPAK	500
SVCGFVYCFT	PSPVVVGITD	RSGAPTYSWG	ANDIDVFLN	NIRPPLGNWF	550
GCTWMNSTGF	TKVCGAPPCV	IGGVGNILL	CPTDCFRKHP	EATYSRCGSG	600
FWITPRQMD	YPYRLWHYPC	TINYTIFKVR	MYVGGVEHRL	EAAQNWIRGE	650
RCDLEDRLRS	ELSPLLLSTT	QWQVLPCSFT	TLPALSTGLI	HLHQNIVDVQ	700
YLYGVGSSIA	SWAIKWEYV	LLFLLLADAR	VCSCWMLL	ISQAEAALEN	750
LVIILNAASLA	GIHGLVSFLV	FFCFAWYKLG	RWVPGAVYAL	YGMWPLLLLL	800
LALPQRAYAL	DTEVAASCGG	VVLVGLMALT	LSPYYKRYIS	WCMWWLQYFL	850
TRVEAQLHW	VPPLNVRGGR	DAVILLMCV	HPTLVFDITK	LLLAIFGPLW	900
ILQASLLKVP	YFVRVQGLLR	ICALARKIAG	GHYVQMAIHK	LGALTGTIVY	950
NHLITPLRDWA	HNGLRDLAVA	VEPVVFSRME	TKLITWADT	AACGDIINGL	1000
PVSARRQGEI	LLGPADGMVS	KGWRLAPIT	AYAQQTRGLL	GCIITSLTGR	1050
DKNQVEGEVQ	IVSTATQTFL	ATCINGVCWT	VYHGAGIRTI	ASPKGFIQIM	1100
YTNVDQDLVG	WPAPQGSRL	TPCTCGSSDL	YLVTRHADVI	PVRRRGDSRG	1150
SLLSPRPISY	LKGSSGGPLL	CPAGHAVGLF	RAAVCTRGVA	KAVDFIPVEN	1200
LGTIMRSPVF	TDNSSPPAVP	QSFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVLNPSVAA	TLGFGAYMSK	AHGVDENIRT	GVRTITITGSP	ITYSTYGFEL	1300
ADGGCSGGAY	DIICDECHS	TDATSILGIG	TVLDQAETAG	ARLWVLATAT	1350
PFGSVTVSHP	NIEEVALSTT	GEIPFYGKAI	PLEVIKGRH	LIFCHSKKKC	1400
DELAAKLVAL	GINAVAYYRG	LIVSVIPTSG	DAVVVSTDAL	MIGFTGDFDS	1450
VIDCNCVTIQ	TVDFSLDPTF	TIETTTLPQD	AVSRTQRRGR	TGREKPGIYR	1500
FVAPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETIVRLR	AYMNTPLPLV	1550
CQDHLEFWEG	VFTGLTHIDA	HFLSQTKQSG	ENFPYLVAYQ	ATVCARAQAP	1600
PPSWDQMWKC	LIRLKPTLHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMTOMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLSTGCV	VIVGRIVLSG	KPAIIPDREV	1700
LYQEFDEMEME	CSQHLPTYEQ	GMLAEQFKQ	KALGLLQIAS	RHAEVITPAV	1750
QINWQKLEVF	WAKHMANFIS	GIQYLAGLST	LPGNPATIASL	MAFTAAVTSP	1800
LTTGQTLLFN	ILGGWAAQL	AAPGAATAFV	GAGLAGAAIG	SVGLGKVLVD	1850
ILAGYGAGVA	GALVAFKIMS	GEVPSTEDLV	NLLPAILSPG	ALVVGAVCAA	1900

FIG. 6G

13/21

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPGE	GAVQAMNRLI	AFASRGNHVS	PIHYVPESDA	AARVITAILSS	1950
LITVITQLLRRL	HQWISSECTT	PCSGSWLRDI	WDWICEVLSD	FKIWLKAKLM	2000
PQLPGIPFVS	CQRGYRGVWR	GDGIMHIRCH	CGAETTGHVK	NGIMRIVGPR	2050
TCRNMWSGTF	PINAYTTGPC	TPLPAPNYKF	ALWRVSAEEY	VEIRRVGDFH	2100
YVSGMITDNL	KCPOQIPSPE	FFTELDGURL	HRFAPPCKPL	LREEVSFRVG	2150
LHEYFVGSOL	PCEPEPDVAV	LTSMLTDPSH	ITAEAAAGRRL	ARGSPPSMAS	2200
SSASQLSAPS	LKATCTANHD	SPDAELTEAN	LLWRQEMGGN	TIRVESENKV	2250
VILDSFDPLV	AEEDEREVS	PAEILRKSRR	FARALPWWAR	PDYNPPLVET	2300
WKKPDYEPPV	VHGCPLPPPR	SPPVPPPRKK	RTVVLTESTL	STALAEATK	2350
SFGSSSTSGI	TGDNITTSSE	PAPSGCPPDS	DVESYSSMPP	LEGEFGDPL	2400
SDGSWSTVSS	GATEDVCC	SMSYSWIGAL	VTPCAAEEQK	LPINALSNSL	2450
LRHNLVYST	TSRSACQRQK	KVTFDRLQVL	DSHYQDVLKE	VKAAASKVKA	2500
NLLSVEEACS	LTPPHSAKSK	FGYGAKIVRC	HARKAVAHIN	SWKDLLED	2550
VTPIDITIMA	KNEVFCVQPE	KGGRKPARLI	VFPDLGVRVC	EKMALYDVS	2600
KLFLAVMGSS	YGFQYSPGQR	VEFLVQAWKS	KKTFMGFSYD	TRCFDSTVTE	2650
SDIRTEEATY	QCCDLDPQAR	VAIKSLTERL	YVGGPLINSR	GENCGYRRCR	2700
ASGVLTTSCG	NLTICYIKAR	AACRAAGLQD	CTMLVCGDDL	VWICESAGVQ	2750
EDAASLRAFT	EAMTRYSAAP	GDPPQPEYDL	ELITSCSSNV	SVAHDGAGKR	2800
VYYLTRDPTT	PLARAAWETA	RHTPVNSWL	NIIMFAPTLW	ARMILMTHFF	2850
SVLIARDQLE	QALNCETYGA	CYSIEPLDLP	PIIQRLHGLS	AFSLHSYSFG	2900
EINRVAACLR	KLGVPLRAW	RHRARSVRAR	LLSRGGRAAI	CGKYLEFNWAV	2950
RTKLKLTPIA	AAGRLDLGW	FTAGYSGGDI	YHSVSHARPR	WFWFCLLLIA	3000
AGVGTYLLEN	R				3011

FIG. 6H

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCCGTGGA	50
GGAACTACTG	TCTTCACGCA	GAAAGCGTCT	AGCCATGGCG	TTAGTATGAG	100
TGTGCTGCAG	CCTCCAGGAC	CCCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGOCAG	GACGACCGGG	TCCITTCCTG	200
GATCAACCCG	CTCAATGCCT	GGAGATTGCG	GCGTGCCCCC	GCGAGACTGC	250
TAGCCGAGTA	GTGTTGGGTC	GCGAAAGGCC	TTGTGGTACT	GCCTGATAGG	300
GTGCTTGGGA	GTGCCCCCGG	AGGCTCTGTA	GACCGTGCAC	CATGAGCACG	350
AATCCTAAAC	CTCAAAGAAA	AACCAAAAGT	AACACCAACC	GCCGCCACAA	400
GGACGTCAAG	TTCCCCGGCG	GTGGTCAGAT	CGTTGGTGGG	GTTTACCTGT	450
TGCCCCGCGC	GGGCCCCAGG	TTGGGTGTGC	GCGCGACTAG	GAAGGCTTCC	500
GAGCGGTGCG	AACCTCGTGG	AAGGCGACAA	CCTATCCCAA	AGGCTCGCCG	550
ACCCGAGGGC	AGGGCCTGGG	CTCAGCCCCG	GTACCCCTTG	CCCCCTCTAT	600
GCAATGAGGG	CCTGGGGTGG	GCAGGATGGC	TCTGTTCACC	CCGCGGCTCC	650
CGGCCTAGTT	GGGGCCCCAC	GGACCCCCCG	CGTAGGTGCG	GTAACCTTGG	700
TAAGGTCATC	GATACCCCTA	CATGCGGCTT	CGCCGATCTC	ATGGGGTACA	750
TTCCGCTCGT	CGGCGCCCCC	CTAGGGGGCG	CTGCCAGGGC	CTTGGCACAC	800
GGTGTCCGGG	TTCTGGAGGA	CGGCGTGAAC	TATGCAACAG	GGAACCTTGC	850
CGGTTGCTCT	TTCTCTATCT	TCTCTTTGGC	TCTGCTGTCC	TGTTTGACCA	900
TCCCAGCTTC	CGCTTATGAA	GTGCGCAACG	TGTCCGGGAT	ATACCATGTC	950
ACGAACGACT	GCTCCAACTC	AAGCATTTGT	TATGAGGCAG	CGGACGTGAT	1000
CATGCATACT	CCCGGGTGGC	TGCCCTGTGT	TCAGGAGGGT	AACAGCTCCC	1050
GTGCTGGGGT	AGCGCTCACT	CCCACGCTCG	CGGCCAGGAA	TGCCAGCGTC	1100
CCCACTACGA	CAATACGACG	CCACGTGAC	TTGCTCGTTG	GGACGGCTGC	1150
TTTCTGCTCC	GCTATGTACG	TGGGGGATCT	CTGCCGATCT	ATTTTCCTCG	1200
TCTCCCAGCT	GTTCACCTTC	TGCGCTCGCC	GGCATGAGAC	AGTGCAGGAC	1250
TGCAACTGCT	CAATCTATCC	CGGCCATGTA	TCAGGTCAAC	GCATGGCTTG	1300
GGATATGATG	ATGAACTGGT	CACCTACAAC	AGCCCTAGTG	GTGTGCGAGT	1350
TGCTCCGGAT	CCCACAAGCT	GTGCTGGACA	TGGTGGCGGG	GGCCCACTGG	1400
GGAGTCCCTG	CGGGCCTTGC	CTACTATTCC	ATGGTAGGGA	ACTGGGCTAA	1450
GGTTCTGATT	GTGGCGCTAC	TCTTTGCGCG	CGTTGACGGG	GAGACCCACA	1500
CGACGGGGAG	GGTGGCGCGC	CACACCACCT	CGGGGTTTAC	GTCCCTTTTC	1550
TCATCTGGGG	CGTCTCAGAA	AATCCAGCTT	GTGAATACCA	ACGGCAGCTG	1600
GCACATCAAC	AGGACTGCCC	TAAATTGCAA	TGACTCCCTC	CAAACCTGGT	1650
TCTTTGCGCG	GCTGTTTTC	GCACACAAGT	TCAACTCGTC	CGGGTGCCCG	1700
GAGCGCATGG	CCAGCTGCCG	CCCCATTGAC	TGGTTCCGCC	AGGGGTGGGG	1750
CCCCATCACC	TATACTAAGC	CTAACAGCTC	GGATCAGAGG	CCTTATTTGCT	1800
GGCATTACGC	GCCTCGACCG	TGTGGTGTGG	TACCCGCGTC	GCAAGGTGTG	1850
GGTCCAGTGT	ATTGTTTCAC	CCCAAGCCCT	GTTGTGGTGG	GGACCACCGA	1900

FIG. 7A

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGGTTCCGGT	GTCCCTACGT	ATAGCTGGGG	GGAGAATGAG	ACAGACGTGA	1950
TGCTCCTCAA	CAACACGCGT	CCGCCACAAG	GCAACTGGTT	CGGCTGTACA	2000
TGGATGAATA	GTACTGGGTT	CACTAAGACG	TGCGGAGGTC	CCCCGTGTAA	2050
CATCGGGGGG	GTCGGTAACC	GCACCTTGAT	CTGCCCCAAG	GACTGCTTCC	2100
GGAAGCACCC	CGAGGCTACT	TACACAAAAT	GTGGCTCGGG	GCCCTGGTTG	2150
ACACCTAGGT	GCCTAGTAGA	CTACCCATAC	AGGCTTTGGC	ACTACCCCTG	2200
CACTCTCAAT	TTTTCCATCT	TTAAGGTTAG	GATGTATGTG	GGGGCGGTGG	2250
AGCACAGGCT	CAATGCCGCA	TGCAATTGGA	CTCGAGGAGA	GCGCTGTAAAC	2300
TTGGAGGACA	GGGATAGGTC	AGAACTCAGC	CCGCTGCTGC	TGCTTACAAC	2350
AGAGTGGCAG	ATACTGCCCT	GTGCTTTCAC	CACCTAACCG	GCTTTATCCA	2400
CTGGTTTGAT	CCATCTCCAT	CAGAACATCG	TGGACGTGCA	ATACCTGTAC	2450
GGTGTAGGGT	CAGCGTTTGT	CTCCTTTGCA	ATCAAATGGG	AGTACATCCT	2500
GTTCCTTTTC	CTTCTCCTGG	CAGACGCGCG	CGTGTGTGCC	TGCTTGTTGA	2550
TGATGCTGCT	GATAGCCCAG	GCTGAGGCCG	CCTTAGAGAA	CTTGGTGGTC	2600
CTCAATGCCG	CGTCCGTGGC	CGGAGCGCAT	GGTATTCCTCT	CCTTTCTTGT	2650
GTTCCTTCGC	GCCGCCCTGGT	ACATTAAAGG	CAGGCTGGCT	CCTGGGGCGG	2700
CGTATGCTTT	TTATGGCGTA	TGGCCGCTGC	TCTGCTCCT	ACTGGCGTTA	2750
CCACCACGAG	CTTACGCCTT	GGACCGGGAG	ATGGCTGCAT	CGTGCGGGGG	2800
TGCGGTTCTT	GTAGGTCTGG	TATTCCTTGAC	CTTGTCACCA	TACTACAAAG	2850
TGTTTCTCAC	TAGGCTCATA	TGGTGGTTAC	AATACCTTAT	CACCAGAGCC	2900
GAGGCGCACA	TGCAAGTGTG	GGTCCCCCCC	CTCAACGTTT	GGGGAGGCCG	2950
CGATGCCATC	ATCCTCCTCA	CGTGTGCGGT	TCATCCAGAG	TTAATTTTTG	3000
ACATCACCAA	ACTCCTGCTC	GCCATACTCG	GCCCCCTCAT	GGTGCTCCAG	3050
GCTGGCATAA	CGAGAGTGCC	GTACTTGGTG	CGCGCTCAAG	GGCTCATTCG	3100
TGCATGCATG	TTAGTCCGAA	AAGTCGCCGG	GGGTCAATTAT	GTCCAAATGG	3150
TCTTCATGAA	GCTGGGCGCG	CTGACAGGTA	CGTACGTTTA	TAACCATCTT	3200
ACCCCACTGC	GGGACTGGGC	CCACGCGGGC	CTACGAGACC	TTGCGGTGGC	3250
GGTAGAGCCC	GTCGTCTTCT	CCGCCATGGA	GACCAAGGTC	ATCACCTGGG	3300
GAGCAGACAC	CGCTGCGTGT	GGGGACATCA	TCTTGGGTCT	ACCCGTCTCC	3350
GCCCGAAGGG	GGAAGGAGAT	ATTTTTTGGG	CCGGCTGATA	GTCTCGAAGG	3400
GCAAGGGTGG	CGACTCCTTG	CGCCCATCAC	GGCCTACTCC	CAACAAACGC	3450
GGGGCGTACT	TGGTTGCATC	ATCACTAGCC	TCACAGGCCG	GGACAAGAAC	3500
CAGGTGGAAG	GGGAGGTTCA	AGTGGTTTCT	ACCGCAACAC	AATCTTTCTT	3550
GGCGACCTGC	ATCAACGCCG	TGTGCTGGAC	TGTCTTACCAT	GGCGCTGGCT	3600
CGAAGACCTT	AGCCGGTCCA	AAAGGTCCAA	TCACCCAAAT	GTACACCAAT	3650
GTAGACCTGG	ACCTCGTCCG	CTGGCAGGCG	CCCCCGGGGG	CGCGCTCCAT	3700
GACACCATGC	AGCTGTGGCA	GCTCGGACCT	TTACTTGGTC	ACGAGACATG	3750
CTGATGTCAT	TCCGGTGGCG	CGGCGAGGCG	ACAGCAGGGG	AAGTCTACTC	3800

FIG. 7B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCCCCCAGGC	CCGTCTCCTA	CCTGAAAGGC	TCCTGGGGTG	GTCCATTGCT	3850
TTGCCCTTCG	GGGCACGTGG	TGGGGGTCTT	CCGGGCTGCT	GTGTGCACCC	3900
GGGGGGTCCG	GAAGGCGGTG	GACTTCATAC	CCGTTGAGTC	TATGGAAACT	3950
ACCATGCGGT	CTCCGGTCTT	CACAGACAAC	TCAACCCCCC	CGGCTGTACC	4000
GCAGACATTC	CAAGTGGCAC	ATCTGCACGC	TCCTACTGGC	AGGGGCAAGA	4050
GCAACAAAGT	GCCGGCTGGG	TATGCAGCCC	AAGGGTACAA	GGTGCTCGTC	4100
CTGAACCCGT	CCGTTGCCGC	CACCTTAGGG	TTTGGGGGGT	ATATGTCCAA	4150
GGCACACGGT	ATCGACCCTA	ACATCAGAAC	TGGGGTAAAG	ACCATTAACA	4200
CGGGCGGCTC	CATTACGTAC	TCCACCTATG	GCAAGTTCCT	TGCGGACGGT	4250
GGCTGTTCCTG	GGGGCGCCTA	TGACATCATA	ATATGTGATG	AGTGCCACTC	4300
AACTGACTCG	ACTACCATCT	TGGGCATGGG	CACAGTCTTG	GAOCAAAGGG	4350
AGACGGCTGG	AGCGCGGCTC	GTGGTGCTCG	CCACCGCTAC	AOCTCCGGGA	4400
TCGGTTACCG	TGCCACACCC	CAATATCGAG	GAAATAGGCC	TGTCCAACAA	4450
TGGAGAGATC	CCCTTCTATG	GCAAAGOCAT	CCCATTTGAG	GCCATCAAGG	4500
GGGGGAGGCA	TCTCATTTTC	TGCCATTCCA	AGAAGAAATG	TGACGAGCTC	4550
GCCGCAAAGC	TGACAGGGCT	CGGACTGAAC	GCTGTAGCAT	ATTACCGGGG	4600
CCTTGATGTG	TCCGTCATAC	CGCCTATCGG	AGACGTCTGT	GTGGTGCCAA	4650
CAGACGCTCT	AATGACGGGT	TTACCCGGCG	ATTTTGAATC	AGTGATCGAC	4700
TGCAATACAT	GTGTACCCCA	GACAGTCGAC	TTGAGCTTGG	ATCCCACCTT	4750
CACCATTTGAG	ACGACGACCG	TGCCCCAAGA	CGCGGTGTGG	CGCTCGCAAC	4800
GGCGAGGTAG	AACTGGCAGG	GGTAGGAGTG	GCATCTACAG	GTTTGTGACT	4850
CCAGGAGAAC	GGCCCTCGGG	CATGTTTCAT	TCTTCGGTCC	TGTGTGAGTG	4900
CTATGACGCG	GGCTGTGCTT	GGTATGAGCT	CACGCCCGCT	GAGACCTCGG	4950
TTAGGTTCGG	GGCTTACCTA	AATACACCAG	GGTTGCCCGT	CTGCCAGGAC	5000
CATCTGGAGT	TCTGGGAGAG	CGTCTTCACA	GGCTCACCCC	ACATAGATCC	5050
CCACTTCCTG	TCCCAGACTA	AACAGGCAGG	AGACAACCTT	CCTTACCTGG	5100
TGGCATATCA	AGCTACAGTG	TGCGCCAGGG	CTCAAGCTCC	AOCTCCATCG	5150
TGGGACCAAA	TGTGGAAGTG	TCTCATACGG	CTGAAACCTA	CACGTGCACGG	5200
GCCAACACCC	CTGCTGTATA	GGCTAGGAGC	CGTCCAAAAT	GAGGTTCATCC	5250
TCACACACCC	CATAACTAAA	TACATCATGG	CATGCATGTC	GGCTGACCTG	5300
GAGGTGGTCA	CTAGCACCTG	GGTGCTGGTA	GGCGGAGTCC	TTGCAGCTTT	5350
GGCCGCATAC	TGCCTGACGA	CAGGCAGTGT	GGTCATTGTG	GGCAGGATCA	5400
TCTTGTCCGG	GAAGCCAGCT	GTGGTTCCCG	ACAGGGAAGT	CTCTTACCAG	5450
GAGTTCGATG	AGATGGAAGA	GTGTGCCCTCA	CAAGTTGGTT	ACATCGAGCA	5500
GGGAATGCAG	CTCGCCGAGC	AATTCAAGCA	AAAGGCGCTC	GGGTTGTGTC	5550
AAACGGCCAC	CAAGCAAGCG	GAGGCTGCTG	CTCCCGTGGT	GGAGTCCAAG	5600
TGGCGAGCCC	TTGAGACCTT	CTGGGCGAAG	CACATGTGGA	ATTTCATCAG	5650
CGGAATACAG	TACCTAGCAG	GCTTATCCAC	TCTGCCTGGA	AACCCCGCGA	5700

FIG. 7C

17/21

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TAGCATCATT	GATGGCATT	ACAGCTTCTA	TCACTAGCCC	GCTCACCACC	5750
CAAAACACCC	TCCTGTTTAA	CATCTTTGGG	GGATGGGTGG	CTGCCCCACT	5800
CGCTCCTCCC	AGCGCTGCGT	CAGCTTTTGG	GGGCGCCGGC	ATCGCCGGAG	5850
CGGCTGTTGG	CAGCATAGGC	CTTGGGAAGG	TGCTCGTGGG	CATCTTTGGG	5900
GGCTATGGGG	CAGGGGTAGC	CGGCGCACTC	GTGGCCTTTA	AGGTCATGAG	5950
CGGCGAGGTG	CCCTCCACCG	AGGACCTGGT	CAACTTACTC	CCTGCCATCC	6000
TCTCTCCTGG	TGCCCCGGTC	GTGGGGGTGG	TGTGGGCAGC	AATACTGGGT	6050
CGGCAAGTGG	GCCCCGGGGA	GGGGGCTGTG	CAGTGGATGA	ACCGGCTGAT	6100
AGCGTTGGCT	TGGGGGGGTA	ACCAAGTCTC	CCCTAAGCAC	TATGTGGCTG	6150
AGAGCGAAGC	TGCAGCACGT	GTCACTCAGA	TCCTCTCTAG	CCTTACCATC	6200
ACTCAACTGC	TGAAGCGGCT	CCACAGTGGG	ATTAATGAGG	ACTGCTCTAC	6250
GCCATGCTCC	GGCTCGTGGC	TAAGGGATGT	TTGGGATTGG	ATATGCACGG	6300
TGTTGACTGA	CTTCAAGACC	TGGCTCCAGT	CCAAACTCCT	GCGCGGTTTA	6350
CCGGGAGTCC	CTTTCTGTGC	ATGCCAACGC	GGGTACAAGG	GAGTCTGGCG	6400
GGGGGACGGC	ATCATGCAAA	CCACCTGCCC	ATGGCGAGCA	CAGATCGCCG	6450
GACATGTCAA	AAACGGTTCC	ATGAGGATCG	TAGGGCCTAG	AACCTGCAGC	6500
AACACGTGGC	ACGGAACGTT	CCCCATCAAC	GCATACACCA	CGGGACCTTG	6550
CACACCCCTC	CCGGCGCCCA	ACTATTCCAG	GGCGCTATGG	CGGGTGGCTG	6600
CTGAGGAGTA	CGTGGAGGTT	ACGCGTGTGG	GGGATTTCCA	CTACGTGACG	6650
GGCATGACCA	CTGACAACGT	AAAGTGCCCA	TGCCAGGTTT	CGGCCCCCGA	6700
ATTCTTTCAG	GAGGTGGATG	GAGTGGCGTT	GCACAGGTAC	GCTCCGGCGT	6750
GCAAACCTCT	TCTACGGGAG	GACGTCACGT	TCCAGGTCCG	GCTCAACCAA	6800
TACTTGGTCC	GGTCGCAGCT	CCCATGCGAG	CCCGAACCGG	ACGTAAACAGT	6850
GCTTACTTCC	ATGCTCACCG	ATCCCTCCCA	CATTACAGCA	GAGACGGCTA	6900
AGCGTAGGCT	GGCTAGAGGG	TCTCCCCCTT	CTTTAGCCAG	CTCATCAGCT	6950
AGCCAGTTGT	CTGCGCCTTC	TTTGAAGGCG	ACATGCACTA	CCCACCATGA	7000
CTCCCCGGAC	GCTGACCTCA	TGCAGGCCAA	CCTCTTTGTT	CGGCAGGAGA	7050
TGGGCGGAAA	CATCACTCGC	GTGGAGTTCAG	AGAATAAGGT	AGTAATTCTG	7100
GACTCTTTTC	AACCGCTTCA	CGCGGAGGGG	GATGAGAGGG	AGATATCCGT	7150
CGCGGCGGAG	ATCCTGCGAA	AATCCAGGAA	GTTCCTCTCA	GCGTTGCCCA	7200
TATGGGCACG	CCCGGACTAC	AATCCTCCAC	TGCTAGAGTC	CTGGAAGGAC	7250
CCGGACTACG	TCCCTCCGGT	GGTACACGGA	TGCCCATTTG	CACCTACCAA	7300
GGCTCCTCCA	ATACCACCTC	CACGGAGAAA	GAGGACGGTT	GTCCTGACAG	7350
AATCCAATGT	GTCTTCTGCC	TTGGCGGAGC	TGCGCACTAA	GACCTTCGGT	7400
AGCTCCGGAT	CGTCGGCCGT	TGATAGCGGC	ACGGCGACCG	CCCTTCCTGA	7450
CCTGGCCTCC	GACGACGGTG	ACAAAGGATC	CGACGTTGAG	TGCTACTCCT	7500
CCATGCCCCC	CCTTGAAGGG	GAGCCGGGGG	ACCCCGATCT	CAGCGACGGG	7550
TCTTGGTCTA	CCGTGAGTGA	GGAGGCTAGT	GAGGATGTGG	TCTGCTGCTC	7600

FIG. 7D

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10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AATGTCTCTAT	ACGTGGACAG	GCGCCCTGAT	CACGCCATGC	GCTGGGGAGG	7650
AAAGTAAGCT	GCCCATCAAC	CGTTTGAGCA	ACTCTTTGCT	GCGTCACCAC	7700
AACATGGTCT	ACGCCACAAC	ATCCCGCAGC	GCAAGCCTCC	GGCAGAAGAA	7750
GGTCACCTTT	GACAGATTGC	AAGTCTTGGA	TGATCATTAC	CGGGACGTAC	7800
TCAAGGAGAT	GAAGGCGAAG	GCGTCCACAG	TTAAGGCTAA	GCTTCTATCT	7850
ATAGAGGAGG	CCTGCAAGCT	GACGCCCCCA	CATTGGGACA	AATCCAAATT	7900
TGGCTATGGG	GCAAAGGACG	TCCGGAACCT	ATCCAGCAGG	GCGTTTAAAC	7950
ACATCCGCTC	CGTGTGGGAG	GACTTGCTGG	AAGACACTGA	AACACCAATT	8000
GACACCAACA	TCATGGCAAA	AAGTGAGGTT	TTCTGGGTCC	AACCAGAGAA	8050
GGGAGGCGGC	AAGCCAGCTC	GCCTTATCGT	ATTCCAGAC	CTGGGAGTTC	8100
GTGTATGCCA	GAAGATGGCC	CTTTACGACG	TGGTCTCCAC	CCTTCTCAG	8150
GCCGTGATGG	GCTCCTCATA	CGGATTTCAA	TACTCCCCCA	AGCAGCGGGT	8200
CGAGTTCTTG	GTGAATACCT	GGAAATCAAA	GAAATGCOCT	ATGGGCTTCT	8250
CATATGACAC	CCGCTGTTTT	GACTCAACGG	TCACTGAGAG	TGACATTCTT	8300
GTTGAGGAGT	CAATTTACCA	ATGTTGTGAC	TTGGCCCCCG	AGGCCAGACA	8350
GGCCATAAGG	TGGCTCACAG	AGCGGCTTTA	CATCGGGGGT	CCCCTGACTA	8400
ACTCAAAAGG	GCAGAACTGC	GGTTATCGCC	GGTGGCGGC	AAGTGGCGTG	8450
CTGACGACTA	GCTGCGGTAA	TACCTTCACA	TGTTACTTGA	AGGCCACTGC	8500
AGCCTGTGCA	GCTGCAAAGC	TCCAGGACTG	CACGATGCTC	GTGAACGGAG	8550
ACGACCTTGT	CGTTATCTGT	GAAAGCGCGG	GAACCCAGGA	GGATGCGGCG	8600
GCCCTACGAG	CCTTCACGGA	GGCTATGACT	AGGTATTCGG	CCCCCCCCCG	8650
GGATCCGCCC	CAACCAGAAT	ACGACCTGGA	GCTGATAACA	TCATGTTCTT	8700
CCAATGTGTC	AGTCGCGCAC	GATGCATCTG	GCAAAAGGGT	ATACTACCTC	8750
ACCCGTGACC	CCACCACCCC	CCTTGCACGG	GCTGGGTGGG	AGACAGCTAG	8800
ACACACTCCA	ATCAACTCTT	GGCTAGGCAA	TATCATCATG	TATGCGCCCA	8850
CCCTATGGGC	AAGGATGATT	CTGATGACTC	ACTTTTCTTC	CATCCTTCTA	8900
GCTCAAGAGC	AACTTGAAA	AGCCCTGGAT	TGTCAGATCT	ACGGGGCTTG	8950
CTACTCCATT	GAGCCACTTG	ACCTACCTCA	GATCATTGAA	CGACTCCATG	9000
GTCTTAGCGC	ATTTACACTC	CACAGTTACT	CTCCAGGTGA	GATCAATAGG	9050
GTGGCTTCAT	GCCTCAGGAA	ACTTGGGGTA	CCACCCCTGC	GAACCTGGAG	9100
ACATCGGGCC	AGAAGTGTCC	GCGCTAAGCT	ACTGTCCAG	GGGGGGAGGG	9150
CCGCCACTTG	TGGCAGATAC	CTCTTTAACT	GGGCAGTAAG	GACCAAGCTT	9200
AAACTCACTC	CAATCCCGGC	CGCGTCCAG	CTGGACTTGT	CTGGCTGGTT	9250
CGTCGCTGGT	TACAGCGGGG	GAGACATATA	TCACAGCCTG	TCTCGTGCCC	9300
GACCCCGCTG	GTTCGCTTG	TGCTACTTCC	TACTTTCTGT	AGGGGTAGGC	9350
ATTTACCTGC	TCCCCAACCG	ATGAACGGGG	AGCTAACCCAC	TCCAGGCCTT	9400
AAGCCATTTC	CTGTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	TCTTTTTTTT	9450
TTTCTTTCTT	TTCCTTCTTT	TTTTCTTTTC	TTTTTCCCTT	CTTTAATGGT	9500

FIG. 7E

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10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GGCTCCATCT	TAGCCCTAGT	CACGGCTAGC	TGTGAAAGGT	CCGTGAGCOG	9550
CATGACTGCA	GAGAGTGCTG	ATACTGGCCT	CTCTGCAGAT	CATGT	9595

FIG. 7F

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQRK	TKRNINRRPQ	DVKFPGGGQI	VGGVYLLPRR	GPRLGVRATR	50
KASERSQPRG	RRQPIPKARR	PEGRAWAQPG	YFWPLYGNEG	LGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLG	KVIDTLITCGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRLVED	GVNYATGNLP	GCSFSIFLLA	LLSCLTIPAS	AYEVRNVSGI	200
YHVINDCSNS	SIVYEAADVI	MHTPGCVPCV	QEGNSSROW	ALITPILAARN	250
ASVPTTTTIR	HVDLLVGTA	FCSAMYVGD	OGSIFLVSQ	FTFSRRRHET	300
VQDCNCSTYP	GHVSGHRMAW	DMMNWSPTT	ALVVSQLLRI	PQAVVIMVAG	350
AHWGVLGLA	YYSMVGNWAK	VLIVALLFAG	VDGETHITGR	VAGHITSGET	400
SLFSSGASQK	IQLVNINGSW	HINRTALN	DSLQITGFFA	LFYAHKFNSS	450
GCPERMASCR	PIIWFAQGW	PTTYTKPNSS	DQRPYCWYHA	PRPGVVPAS	500
QVOGFPVYCF	PSFVVVGITD	RSGVPTYSWG	ENEIDVMLLN	NIRPPQGNWF	550
GCTWMNSTGF	TKTCGGPPCN	IGGVGNRTLI	CPTDCFRKHP	EATYTKCGSG	600
PWLTPRCLVD	YPYRLWHYPC	TLNFSIFKVR	MYVGGVEHRL	NAACNWIRGE	650
RCNLEDRDRS	ELSPLLLSTT	EWQILPCAFT	TLPALSTGLI	HLHQNVVDVQ	700
YLYGVGSAFV	SFAIKWEYIL	LLFLLADAR	VCACIWMMLL	IAQAEAALEN	750
LVLVNAASVA	GAHGILSFLV	FFCAAWYIKG	RLAPGAAYAF	YGVWPLLLLL	800
LALPPRAYAL	DREMAASCGG	AVLVGLVFLT	LSPYKVFILT	RLIWLQYFT	850
TRAEAHMQW	VPPLNVRGGR	DAIILLTCAV	HPELIFDITK	LLLATLGPLM	900
VLQAGITRVP	YFVRAQGLIR	ACMLVRKVAG	GHYVQMVFMK	LGALTGTIVY	950
NHLTPLRDWA	HAGLRDLAVA	VEPVVFSAME	TKVTTWGADT	AACGDIILGL	1000
PVSARRGKEI	FLGPADSLEG	QGWRLAPIT	AYSQQTRGVL	GCIITSLTGR	1050
DKNQVEGEVQ	VVSTATQSFL	ATCINGVCWT	VYHGAGSKTL	AGPKGPITQM	1100
YTNVDLIDL	WQAPPGARSM	TPCSCGSSDL	YLVTRHADVI	FVRRRGDSRG	1150
SLLSPRPVSY	LKGSSGGPLL	CPSGHVGVF	RAAVCTRGVA	KAVDFTIPVES	1200
METIMRSPVF	TDNSTPPAVP	QTFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVLNPSVAA	TLGFGAYMSK	AHGIDPNIRT	GVRTTTTIGS	ITYSTYKFL	1300
ADGGCSGAY	DIICDECHS	TDSTTILGIG	TVLDQAETAG	ARLVLATAT	1350
PPGSVTVPHP	NIEEIGLSNN	GEIPFYGKAI	PIEAIKGGRH	LIFCHSKKKC	1400
DELAAKLTGL	GLNAVAYYRG	LDSVIPPIG	DVVVATDAL	MTGFTGDFDS	1450
VIDQNTCVTQ	TVDFSIDPTF	TIETTTVPQD	AVSRSQRRGR	TGRGRSGIYR	1500
FVTPGERPSG	MFDSSVLCBC	YDAGCAWYEL	TPAETSVRLR	AYLNTFGLPV	1550
CQDHLEFWES	VFTGLTHIDA	HFLSQTKQAG	DNFPYLVAYQ	ATVCARAQAP	1600
PPSWDQMWKC	LIRLKPTLHG	PTFLLYRLGA	VQNEVILTHP	ITKYIMACMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLTTGSV	VTVGRIILSG	KPAVVPDREV	1700
LYQEFDEMEE	CASQLPYIEQ	GMQLAEQFKQ	KALGLLQIAT	KQAEAAAPVV	1750
ESKWRALET	WAKHMANFIS	GIQYLAGLST	LPGNPAIASL	MAFTASTTSP	1800
LTTQNTLLFN	ILGGWAAQL	APPSAASAFV	GAGIAGA AVG	SIGLGKVLVD	1850
ILAGYGAGVA	GALVAFKVMS	GEVPSTEDLV	NLLPAILSPG	ALVVGWCAA	1900

FIG. 7G

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPGE	GAVQAMNRLI	AFASRGNHVS	PIHYVPESDA	AARVTQILSS	1950
LTTTQLLKRL	HQWINEDCST	PCSGSWLRDV	WDWICTIVLTD	FKTWLQSKLL	2000
PRLPGVPFSL	CQRGYKGWR	GDGIMQTTCP	CGAQIAGHVK	NGSMRTVGPR	2050
TCSNIWHGTF	PINAYTTGPC	TPSPAPNYSR	ALWRVAAEEY	VEVIRVGDFH	2100
YVTGMTTINV	KCPQQVPAPE	FFTEVDGVRL	HRVAPACKPL	LREDVTFQVG	2150
LNQYLVGSOL	PCEPEPDVTV	LTSMLTDPHS	ITAEIAKRRL	ARGSPPSLAS	2200
SSASQLSAPS	LKATCTIHHD	SPDADLJEAN	LLWRQEMGGN	TIRVESENKV	2250
VILDSFEPLH	AEGDEREISV	AAEILRKSRK	FPSALPIWAR	PDYNPPLLES	2300
WKDPDYVPPV	VHGCPLPPTK	APPIPPERRK	RTVVLTESNV	SSALAEIATK	2350
TFGSSGSSAV	DSGIATATLPD	LASDDGDKGS	DVESYSSMPP	LEGEFGDPLD	2400
SDGSWSIVSE	EASEDVVCCS	MSYTIWIGALI	TPCAAEEKSL	PINPLSNSLL	2450
RHHNMVYATT	SRSASLRQKK	VTFDRLQVLD	DHYRDVLKEM	KAKASTVKAK	2500
LLSTEEACKL	TPPHSAKSKF	GYGAKDVRNL	SSRAVNHIRS	WEDLLEDTE	2550
TPIDTTIMAK	SEVFCVQPEK	GGRKPARLIV	FDDLGV RVCE	KMALYDVVST	2600
LPQAVMGSSY	GFQYSPKQRV	EFLVNIWWSK	KCPMGFSYDT	RCFDSTVTES	2650
DIRVEESTIQ	CCDLAPEARQ	AIRSLTERLY	IGGPLINSKG	QNOGYRR CRA	2700
SGVLTTSCGN	TLTCYLKATA	ACRAAKLQDC	TMLVNGDDL	VICESAGIQE	2750
DAAALRAFTE	AMIRYSAPPG	DPPQPEYDLE	LITSCSSNVS	VAHDASGKRV	2800
YYLTRDPTTP	LARAAWETAR	HTPINSWLGN	IIMYAPTLWA	RMILMIHFFS	2850
ILLAQEQLK	ALDCQIYGAC	YSIEPLDLPO	IITERLHGLSA	FTLHSYSPGE	2900
INRVASCLRK	LGVPPLRTWR	HRARSVRACL	LSQGGRAATC	GRYLFNWAVR	2950
TKLKLTPIPA	ASQLDLGWF	VAGYSGGDIY	HSLSRARPRW	FPLCLLLLSV	3000
GVGIYLLPNR					3010

FIG. 7H